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DIGITAL TO ANALOG CONVERTER WITH REDUCED RINGING

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of Application No. 10/320,016, filed December 16, 2002, which is now a U.S. Patent 6,714,150 which is a continuation of Application No. 10/175,663, filed June 20, 2002, which is now a U.S. Patent 6,522,279 which is a continuation of Application No. 09/909,282, filed July 19, 2001, which is a continuation of Application No. 09/753,874, filed January 3, 2001 (now U.S. Patent No. 6,268,816), which is a continuation of Application No. 09/458,331, filed December 10, 1999 (now U.S. Patent No. 6,191,719), which is a continuation of Application No. 08/917,408, filed August 25, 1997, now abandoned.

This invention relates to digital-to-analog converters. More particularly, the invention relates to digital-to-analog converters in which a plurality of binary indications representing a value are converted to an analog current or an analog voltage representing the value without any ringing during the binary indications or at the transitions between successive binary indications.

BACKGROUND OF THE INVENTION

Most parameters such as measurements of temperature, humidity and pressure are analog. For example, the use of a mercury thermometer to measure the temperature of a patient is analog since the temperature is measured by the rise of a mercury column. However, temperature may also be indicated digitally. For example, an indication of a temperature of "98.6" may be provided digitally by providing three separate indications of "9", "8" and "6".

Generally, when parameters such as temperature or pressure are measured on an analog basis and these measurements are used to provide calculations for controlling